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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/713,535	11/12/2003	Alan Martin Allgeier	PI1615USNA	9320

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EXAMINER

SACKEY, EBENEZER O

ART UNIT PAPER NUMBER

1626

DATE MAILED: 01/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/713,535

Applicant(s)

ALLGEIER, ALAN MARTIN

Examiner

EBENEZER SACKKEY

Art Unit

1626

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 December 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 12/14/05.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Status of Claims

Claims 1-6 are pending.

The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Information Disclosure Statement

Receipt of the Information Disclosure statement filed 12/14/05 is acknowledged and has been entered into the file. A signed copy of the 1449 is attached herewith.

Claim Rejections - 35 U.S.C. § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Allgeier et al., (U.S. Patent number 6,376,714)('714').

Applicant claims a process of hydrogenating a dinitrile comprising contacting the dinitrile with hydrogen in the presence of a catalyst and a modifier at a pressure of about 2200 psig, wherein the catalyst comprises an element selected from the group consisting of Fe, Ru, Co and Ni and said modifier is selected from the group consisting of quaternary ammonium hydroxides, quaternary ammonium cyanides, quaternary ammonium fluorides, quaternary ammonium thiocyanides, quaternary phosphonium hydroxides, carbon monoxide and hydrogen cyanide.

Allgeier et al., discloses a process for hydrogenating a dinitrile, which comprises forming a reaction mixture that comprises an aliphatic or alicyclic dinitrile, hydrogen, a catalyst comprising Group VIII element and one or more modifiers selected from quaternary ammonium hydroxides, quaternary ammonium cyanides, quaternary ammonium fluorides, quaternary ammonium thiocyanides, quaternary phosphonium hydroxides. See the entire reference especially column 1, lines 63-67 bridging column 2, lines 1-7. It is noted that the reference operating temperature is between 50-150°C,

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which is an overlap between instant claim 2, which is drawn to a temperature range of about 50°C to 250°C. See column 4, lines 46-49.

Thus, the instant claims differ from '714' in the operational pressure of at least 2200 psig.

This difference is not considered a patentable distinction and is thus, *prima facie* obvious absent a showing of unexpected results. There is no indication by way of evidence or otherwise in the specification that discloses the significance of the claimed temperature and pressure in the process as claimed herein.

The claimed temperatures and pressure are an obvious modification available to one of ordinary skill in the art. They are merely optimization of variables, which are not patentable absent unexpected result due to these variables, and hence are a difference in kind, and not merely in degree from that of the prior art. *In re Aller*, 105 USPQ 233, (1955). Also see *In re Boesch*, 205 USPQ, 215, (1980). The reference discloses the hydrogenation of a dinitrile to produce a product. The reference process and the instant process are essentially the same and will prepare essentially the same product(s). Thus, a slight difference in temperature and pressure may serve to differentiate the process from under 35 U.S.C. 102, but does not serve to remove the relied upon reference from under 35 U.S.C. 103.

Therefore, at the time of filing this application, one of ordinary skill in the art would thus, have been motivated to hydrogenate dinitriles with the required reactants of Allgeier et al., with the expectation that the resulting product(s) would maintain high yield and/or selectivity because precise indicated temperature and pressure are preferred.

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Accordingly, it would have been *prima facie* obvious to one of ordinary skill in the art to hydrogenate dinitriles as disclosed by the reference with the required reactants and maintenance elements because explicit temperatures and pressures are preferred and maintaining those variables has been expected to operate with a reasonable expectation of success. Hence, the instantly claimed process would therefore have been suggested to one of ordinary skill in the art absent a showing of unexpected results.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to E. Sackey whose telephone number is (571) 272-0704.

The examiner can normally be reached on Monday-Friday from 7:30 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph K. McKane, can be reached on (571) 272-0699. The fax phone number for this Group is (571) 273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (571) 272-1600.

EOS
January 21, 2006



Joseph K. McKane
Supervisory Patent Examiner
Art Unit 1626, Group 1600
Technology Center 1